

Title (en)
SILICON-CONTROLLED RECTIFIER-COMPATIBLE CONSTANT-VOLTAGE CIRCUIT, LED DIMMING CIRCUIT, AND RELATED LED LIGHTING APPARATUS

Title (de)
MIT SILICIUMGESTEUERTEM GLEICHRICHTER KOMPATIBLE KONSTANTSPANNUNGSSCHALTUNG, LED-DIMMERSCHALTUNG UND ZUGEHÖRIGE LED-BELEUCHTUNGSVORRICHTUNG

Title (fr)
CIRCUIT À TENSION CONSTANTE COMPATIBLE AVEC UN REDRESSEUR COMMANDÉ AU SILICIUM, CIRCUIT GRADATEUR DE DEL, ET APPAREIL D'ÉCLAIRAGE À DEL ASSOCIÉ

Publication
EP 3245851 A4 20180613 (EN)

Application
EP 16737054 A 20160108

Priority
• CN 201510020461 A 20150115
• CN 2016070507 W 20160108

Abstract (en)
[origin: WO2016112828A1] A silicon-controlled rectifier (SCR) -compatible constant-voltage circuit includes an input undervoltage control module (11), an overpower protection module (12), a controllable load module (13), and a power conversion module (14). Further, one terminal of a SCR (15) is connected to the power conversion module (16), and another terminal of the SCR (15) is connected to a power supply module (16). The input undervoltage control module (11), the overpower protection module (12), and the controllable load module (13) are each connected in parallel between a first sampling point and the power conversion module (16), the first sampling point being arranged between the SCR (15) and the power conversion module (16). The power conversion module (16) is connected to a load module (17) and is configured to convert electric signals provided by the power supply module (16) to a constant voltage, the power conversion module (16) providing the constant voltage to the load module. The input undervoltage control module (11) is configured to control the power conversion module (14) to start or stop power conversion based on a comparison between a voltage at the first sampling point and a first reference voltage. The overpower protection module (12) is configured to control the power conversion module to start or stop power conversion based on a comparison between the voltage at the first sampling point and a second reference voltage. The controllable load module (13) is configured to maintain the SCR (15) to be on when the power conversion module(14) stops power conversion.

IPC 8 full level
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CPC (source: EP KR US)
H02M 1/36 (2013.01 - US); **H05B 45/50** (2020.01 - EP KR US); **Y02B 20/30** (2013.01 - EP KR US)

Citation (search report)
• [Y] US 2012242237 A1 20120927 - CHEN SHENGLUN [CN], et al
• [Y] WO 2011063205 A1 20110526 - LUTRON ELECTRONICS CO [US], et al
• [Y] EP 2741585 A2 20140611 - DIALOG SEMICONDUCTOR INC [US]
• See references of WO 2016112828A1

Designated contracting state (EPC)
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WO 2016112828 A1 20160721; CN 104619083 A 20150513; CN 104619083 B 20171020; EP 3245851 A1 20171122;
EP 3245851 A4 20180613; JP 2018502432 A 20180125; JP 6343720 B2 20180613; KR 20170104481 A 20170915; US 10104727 B2 20181016;
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KR 20177019631 A 20160108; US 201615109094 A 20160108